

AMENDMENTS TO THE CLAIMS

1. (Previously amended) A wide-area fiber optic network failover transition system for a plurality of ports communicating over a VLAN comprising:

a first switch having a master mode and a standby mode, said first switch running only a layer 2 protocol and configured to provide switching between said ports, while in said master mode;

a second switch having a master mode and a standby mode, said second switch running only a layer 2 protocol and configured to provide switching between said ports while in said master mode, wherein said second switch is in said standby mode when said first switch is in said master mode, and said second switch is in said master mode when said first switch is in said standby mode;

wherein said first switch is configured, upon a detection of a network failure, to restart auto-negotiation of said ports, and to transition to said standby mode; and wherein said second switch is configured, upon said detection of a network failure, to transition to said master mode; and

wherein, upon said configuration of said second switch to transition to said master mode, at least one of said ports flushes a layer 2 forwarding database and rebroadcasts for a new path over said wide-area fiber-optic network.

2. (Original) The network failover transition system of claim 1, wherein said VLAN is part of an Ethernet network.

3. (Previously amended) The network fail over transition system of claim 2, wherein said VLAN utilizes a router protocol adaptable to utilizing said first switch and said

second switch, said router protocol further comprising a set of mechanisms to effectuate said transition of said first switch to standby mode.

4. (Original) The network fail over transition system of claim 3, wherein said first and second switches are Layer 2 switches.

5. (Original) The network fail over transition system of claim 4, wherein said ports are Layer 3 devices.

6. (Original) The network failover transition system of claim 1, wherein at least one of said ports utilizes Address Resolution Protocol.

7. (Original) The network failover transition system of claim 1, wherein all of said ports utilize Address Resolution Protocol.

8. (Original) The network failover transition system of claim 1, wherein said network failure is detected using ping track.

9. (Original) The network failover transition system of claim 1, wherein said network failure is detected using port track.

10. (Second amendment) A method of failover transitioning a wide-area fiber optic VLAN with a plurality of ports comprising:

establishing a first switch having a master mode and a standby mode as a master switch, said first switch running only a layer 2 protocol;

configuring said master switch to provide switching between said ports.

establishing a second switch having a master mode and a standby mode as a standby switch, said second switch running only a layer 2 protocol;

detecting a communication failure on said VLAN;

restarting auto-negotiation of said ports with said master switch;
flushing a layer 2 forwarding database from at least one of said ports and rebroadcasting for a
new path over said wide-area fiber optic network;
transitioning said first switch to standby mode, whereby said first switch becomes said standby
switch; and
transitioning said second switch to master mode, whereby said second switch becomes said
master switch.

11. (Original) The method of failover transitioning a VLAN of claim 10, wherein said VLAN is part of an Ethernet Network.

12. (Previously amended) The method of failover transitioning a VLAN of claim 11, wherein said VLAN utilizes a router protocol adaptable to utilizing said first switch and said second switch, said router protocol further comprising a set of mechanisms to effectuate said transition of said first switch to standby mode.

13. (Original) The method of failover transitioning a VLAN of claim 12, wherein said first and second switches are Layer 2 switches.

14. (Original) The method of failover transitioning a VLAN of claim 13, wherein said ports are Layer 3 devices.

15. (Original) The method of failover transitioning a VLAN of claim 10, wherein at least one of said ports utilizes Address Resolution Protocol.

16. (Original) The method of failover transitioning a VLAN of claim 10, wherein all of said ports utilize Address Resolution Protocol.